



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,874	11/24/2003	Simon Brain	7114	5117

55740 7590 08/14/2006

GAUTHIER & CONNORS, LLP
225 FRANKLIN STREET
BOSTON, MA 02110

EXAMINER

GARCIA, ERNESTO

ART UNIT PAPER NUMBER

3679

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/720,874	Applicant(s) BRAIN ET AL.	
	Examiner Ernesto Garcia	Art Unit 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2006 and 12 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/12/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 12, 2005 has been entered.

Drawings

The drawings were received on December 12, 2005. These drawings are acceptable; however, the drawings contain a few discrepancies.

The drawings are objected to because the tabs 34 in Figure 2 do not look exactly like those shown in Figures 3-5 and 7. Further, the lead line of reference character 34 in Figures 3-5 and 7 do not point to the tabs but rather the back face of the flange 32. The examiner has noted that the upper beam in Figure 9 has been shown with slots and a second openings unreferenced. Did applicants mean to state that the upper beam is prior art? If not, the beam and the flange shown in prior art Figure 9 need to be

Art Unit: 3679

designated with a different reference character since the parts are not the same parts as those shown in Figure 1. Applicants need to carry out this to comply with 37 CFR 1.84(p)(4).

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "10" has been used to designate both a beam with slots and a second opening (unreferenced in upper beam in Figure 9) and another beam (lower beam in Figure 9 with no slots and no opening).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended". If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the

Art Unit: 3679

applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 1 and 4 are objected to because of the following informalities:

regarding claim 1, --said-- should be inserted before "flange" in line 8; and,

regarding claim 4, "into" in line 4 should be --from--. Appropriate correction is required. For purposes of examining the instant invention, the examiner has assumed these corrections have been made.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, there is an inconsistency between the language in the preamble and a certain portion in the body of the claim, thereby making the scope of the claims unclear. The preamble clearly indicated that the locking mechanism is "for

Art Unit: 3679

preventing unintended disconnection of a generally horizontal beam from a vertical support post". However, the body of the claim positively recites "the horizontal beam" and "the post", e.g., "the locking mechanism comprising: an array of vertically elongated first openings in said post" (lines 2-4) and "an end flange on said beam" (line 5), which indicates that the claims are being drawn to a combination of the "locking mechanism" and both "the horizontal beam and the vertical support post". Accordingly, is the combination or subcombination being claimed? Appropriate correction, clarification, or both is required. For purposes of examination, the examiner has considered the combination.

The recitation "a mid-portion" in line 15 makes unclear how many mid-portions the plate has. This contradicts what the drawing shows because the plate only has one mid-portion. Further, the recitation "a front face" in line 16 makes unclear whether this is a different front face than that recited in line 7, or another different face. According to the drawings, the flange has just one front face.

Regarding claim 4, the limitation "said access opening" in lines 4-5 lacks proper antecedent basis.

Regarding claims 2, 3, and 5, the claims depend from claim 1 and therefore are indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seiz, 3,273,720, in view of McConnell, 3,905,712.

Regarding claim 1, Seiz discloses, in Figure 5, a locking mechanism comprising a generally horizontal beam **13**, a vertical support post **11**, and a resilient plate **50**. The mechanism comprises an array of vertically elongated first openings **26** in the post, an end flange **20** on the beam **13**, and the end flange **20** is arranged to overlap the first openings **26**. Lugs **35,36** project from a front face of the flange **20** into the first openings **26**. The mechanism comprises a pin **52** projecting from a mid-portion of the plate **50** through a second opening **55** in the flange **20** above one of the lugs **35,36** and beyond the front face of the flange **20**.

Applicants should note that the beam **13** and the flange **20** are able to vertically shift between a raised position at which the lugs **35,36** are able to freely move into and out of upper portions of the first openings **26**, and a lowered position at which the lugs

Art Unit: 3679

35,36 are interlocked with the post 11 in lower portions of the first openings 26. The plate 50 is able to resiliently deflect to accommodate retraction of the pin 52 into the second opening 55 when the lugs 35,36 are aligned with the upper portions of the first openings 26, and to urge the pin 52 into the upper portion of one of the first openings 26 when the lugs 35,36 are shifted to the lower portions of the first openings 26.

Seiz discloses a connecting means (the hole on the plate) on one opposite side of the mid-portion of the plate 50 instead on opposite sides of the mid-portion of the plate 50. McConnell teaches, in Figure 7, connecting means 303,304 on opposite sides of a mid-portion of a plate 300 to place a pin in between the connecting means. Therefore, as taught by McConnell, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have connecting means on opposite sides of a mid-portion of the plate to place the pin of Seiz between the connecting means.

Regarding claim 4, Seize discloses the plate 50 is provided with at least one peripheral deformation 51 (Fig. 7) configured to coact with the back face of the flange in defining a pocket.

Allowable Subject Matter

Assuming arguendo that the combination of the mechanism and both the horizontal beam and the vertical support post is being claimed, then claims 2, 3, and 5

Art Unit: 3679

would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

regarding claim 2, the prior art of record does not disclose or suggest a locking mechanism, in combination with a horizontal beam and a vertical support post, comprising, connecting means comprises tabs on the plate and the tab received in interlocked engagement within slots in the flange. The closest prior art, Seiz, 3,273,720, discloses a hole to connect the plate with a flange instead of using tabs.

regarding claim 3, this claim depends from claim 2; and,
regarding claim 5, the prior art of record does not disclose or suggest a locking mechanism, in combination with a horizontal beam and a vertical support post, comprising at least one peripheral deformation aligned laterally with a pin. The closest prior art, McConnell, shows no peripheral deformation, and Highsmith et al., 5,624,045, shows a peripheral deformation, in Figure 12, aligned with another peripheral deformation on an opposite side of the horizontal axis of the plate. There is no motivation, absent applicant's own disclosure, to modify McConnell because the deformation is along the axial direction to the plate.

Response to Arguments

Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 571-282-7083. The examiner can normally be reached from 9:30-5:30. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached at 571-272-7087.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 3679

you have questions on access to the Private PAIR system, contact the Electronic
Business Center (EBC) at 866-217-9197 (toll-free).

E.G.

E.G.

August 7, 2006

Daniel P Stodola

**DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600**